

## CODEBOARD LINK:

<https://codeboard.io/projects/380624/>

### Task 1 (Guided) :

Create a java program to compute Cumulative Grade point average (**CGPA**) of a student. The transcript is already available in a file named **transcript.csv**; The sample transcript file is shown by the following figure:

```
1 IS4518,Software Implementation,3,A
2 IS4519,IT Strategic Planning,3,BC
3 IS4620,Information Security,4,A
4 IS4623,Business Analytics,3,AB
5 IS4624,IT Investment Mangmt,3,AB
6 IS4627,IT Evaluation and Audit,4,A
7 IS4628,IT Ethics and Law,2,AB
```

Each line consists of information about code, course name, credits, and grade separated by comma respectively. **The number of lines within the file could vary amongst students.** Your program should be very flexible. The grade is **A,AB,B,BC,C,D**, or **E** only. To calculate the CGPA, each grade should be converted to its respective score as shown by the table below.

Grade	Score
A	4
AB	3.5
B	3
BC	2.5
C	2
D	1
E	0

A sample of input and its respective output is shown as follow:

Please input your Fullname : Isoku Mung Iki  
Please input your student id : 1100254

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**Academic Report**  
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Student ID.:1100254

Fullname:Isoku Mung Iki

No.	Code	Name	Credit	Grade	Score	W.Score
1	IS4518	Software Implementation	3	A	4.0	12.0
2	IS4519	IT Strategic Planning	3	BC	2.5	7.5
3	IS4620	Information Security	4	A	4.0	16.0
4	IS4623	Business Analytics	3	AB	3.5	10.5
5	IS4624	IT Investment Mangmt	3	AB	3.5	10.5
6	IS4627	IT Evaluation and Audit	4	A	4.0	16.0
7	IS4628	IT Ethics and Law	2	AB	3.5	7.0

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CGPA :3.61363636363638 (passed)  
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**Task 2 (semi-guided) :**

Create a java program to determine whether an account in twitter is a famous account or not. A famous account is an account with a number of followers greater than **1000** and its followers greater than 10 times the number of accounts it follows.

The input is stored in a file namely **problem.txt**, and the output is **ORDINARY** or **FAMOUS**. An example of the file is:

```
1 5
2 100 1002
3 1000 500
4 300 1000000
5 1 50
6 200 3000
7
```

The first line represents the number of accounts, the next lines are the number of following and the number of followers of each account separated by space for each account respectively.

The expected output of above sample input is:

```
FAMOUS
ORDINARY
FAMOUS
ORDINARY
FAMOUS
```

### **TASK 3 PR**

Pak Ahmad, a very rich farmer in Banyuwangi, has  $N$  friends. He will give each of his friends a couple of sheep, consisting of one male sheep and one female sheep. He wants to buy the sheep in the animal market, but he already has  $F$  female sheep. How many extra sheep Pak Ahmad has to buy to ensure he is able to give a couple of sheep to each of his  $N$  Friends? For example, if  $N=2$ ,  $F=4$ , then Pak Ahmad already has 4 female sheep, so he must buy 2 extra male shoes to form 2 couples of sheep.

**Input :**

The first line has a single character representing the number of problems. The next lines are  $N$  and  $F$  of each problem.

**Output:**

the minimum number of extra sheep Pak Ahmad has to buy ?

The input file is: **problemx.txt**

**Example Input:**

3  
2 4  
6 0  
4 3

**Expected Output:**

2  
12  
5